

Solar simplified.



Q.PEAK DUO AC

Q.PEAK DUO BLK ML-G10.C1+/AC

Q.PEAK DUO BLK ML-G10.XY+/AC

(where "X" = any letter between A to W,
where "Y" = any number between 1 to 9.)



Q.PEAK DUO AC

AC module powered by
Q.ANTUM DUO Z Technology



Monitoring & Control

The Q.OMMAND PRO App enables installers to monitor system performance at the module level, while the user-friendly Q.OMMAND HOME App provides homeowners with real-time PV production insights.



Superior Module Performance

Q.PEAK DUO AC is powered by Q.ANTUM DUO Z Technology, boosting module efficiency up to 21.1% which results in more power production over time.



Dependably Backed by One Warrantor

25-year product and performance warranty with an integrated module and microinverter solution from Qcells.



Streamlined Installation & Product Management

- Fast installation enabled by integrated Qcells microinverter
- Improved inventory management enabled by reduced SKU counts and one complete module and MLPE solution
- Seamlessly couples with Qcells' residential energy storage systems



Top Quality Customer Support

While the detachable microinverter simplifies on-site maintenance, Qcells' top-quality customer support offers rapid system troubleshooting.



Includes Domestic Content

- Q.PEAK DUO BLK ML-G10.C1+/AC contains U.S. manufactured components which can contribute to qualifying for the 10% domestic content bonus for applicable investment and production tax credits.¹ Module and microinverter both assembled in the USA by America's No.1 residential solar module manufacturer.

¹ This statement should not be relied on as tax advice and is subject to change based on changes made to the applicable rules and regulations. Please consult a qualified tax professional for specific guidance.

The ideal solution for:



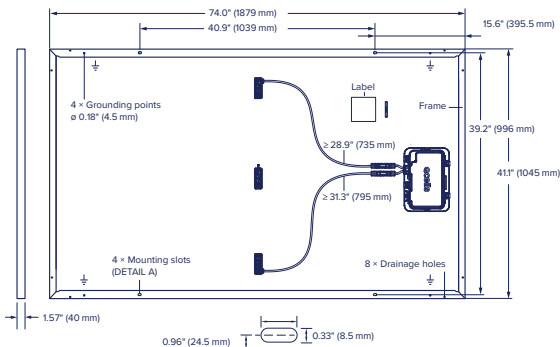
Rooftop arrays on
residential buildings

■ Description

The Q.PEAK DUO AC SERIES is a P-Type Q.ANTUM DUO Z Technology module with an integrated microinverter. The module, with its embedded microinverter, provides optimized power output while also acting as a rapid shutdown compliant solution for optimal system safety. The solution includes a microinverter, DC cables and a junction box, enabling a streamlined installation experience.

■ Mechanical Specification

Format	74.0 in × 41.1 in × 1.57 in (including frame) (1879 mm × 1045 mm × 40 mm)
Weight	52.36 lbs (23.75 kg)
Front Cover	0.13 in (3.2 mm) thermally pre-stressed ARC solar glass
Back Cover	Composite film
Frame	Black anodized aluminum
Cell	6 × 22 monocrystalline Q.ANTUM solar half cells
Junction Box	2.09-3.98 in × 1.26-2.36 in × 0.59-0.71 in (53-101 mm × 32-60 mm × 15-18 mm), Protection class IP67, with bypass diodes
Cable	4 mm ² Solar cable; (+) ≥ 31.3 in (795 mm), (–) ≥ 28.9 in (735 mm)
Connector	Stäubli MC4; IP68



■ AC Output Electrical Characteristics

Q.MI.349B-G1 (Model Name)					
Peak Output Power	[VA]	366	Power Factor (adjustable)	0.85 leading...0.85 lagging	
Max Continuous Output Power	[VA]	349	Max. number of AC Modules per Q.HOME COMBINER 80 G1	[ea]	44 (Q.HOME COMBINER CB: Max 4)
Nominal (L-L) Voltage / Range	[V]	240 / 211 to 264	Max Units per 20 A (L-L) Branch Circuit	[ea]	11
Nominal Rated Output Current	[A]	1.45	Total Harmonic Distortion	[%]	<5
Nominal Frequency / Range	[Hz]	60 / 59.3 to 60.5	Overvoltage Class AC Port	III	
Extended Frequency Range	[Hz]	50 to 66	Night-Time Power Consumption	[mW]	60
Power Factor at Rated Power		1.0	CEC Efficiency	[%]	97

■ DC Power Electrical Characteristics

POWER CLASS				395	400	405	410	415
MINIMUM PERFORMANCE AT STANDARD TEST CONDITIONS, STC ¹ (POWER TOLERANCE +5 W / -0 W)								
Minimum	Power at MPP ¹	P _{MPP}	[W]	395	400	405	410	415
	Short Circuit Current ¹	I _{SC}	[A]	11.10	11.14	11.17	11.20	11.23
	Open Circuit Voltage ¹	V _{OC}	[V]	45.27	45.30	45.34	45.37	45.41
	Current at MPP	I _{MPP}	[A]	10.71	10.77	10.83	10.89	10.95
	Voltage at MPP	V _{MPP}	[V]	36.88	37.13	37.39	37.64	37.89
	Efficiency ¹	η	[%]	≥ 20.1	≥ 20.4	≥ 20.6	≥ 20.9	≥ 21.1

MINIMUM PERFORMANCE AT NORMAL OPERATING CONDITIONS, NMOT²

Minimum	Power at MPP	P _{MPP}	[W]	296.3	300.1	303.8	307.6	311.3
	Short Circuit Current	I _{SC}	[A]	8.95	8.97	9.00	9.03	9.05
	Open Circuit Voltage	V _{OC}	[V]	42.69	42.72	42.76	42.79	42.83
	Current at MPP	I _{MPP}	[A]	8.46	8.51	8.57	8.62	8.68
	Voltage at MPP	V _{MPP}	[V]	35.03	35.25	35.46	35.68	35.89

¹ Measurement tolerances P_{MPP} ± 3%; I_{SC}; V_{OC} ± 5% at STC; 1000 W/m², 25 ± 2 °C, AM 1.5 according to IEC 60904-3 • ²800 W/m², NMOT, spectrum AM 1.5

Qcells PERFORMANCE WARRANTY

At least 98% of nominal DC power during first year. Thereafter max. 0.5% degradation per year. At least 93.5% of nominal DC power up to 10 years. At least 86% of nominal DC power up to 25 years.

All data within measurement tolerances. Full warranties in accordance with the warranty terms of the Qcells sales organization of your respective country.

*Standard terms of guarantee for the 5 PV companies with the highest production capacity in 2021 (February 2021)

PERFORMANCE AT LOW IRRADIANCE

Typical module performance under low irradiance conditions in comparison to STC conditions (25 °C, 1000 W/m²).

TEMPERATURE COEFFICIENTS					
Temperature Coefficient of I _{SC}	α	[%/K]	+0.04	Temperature Coefficient of V _{OC}	β [%/K] -0.27
Temperature Coefficient of P _{MPP}	γ	[%/K]	-0.34	Nominal Module Operating Temperature	NMOT [°F] 109 ± 5.4 (43 ± 3 °C)

■ Properties for System Design

Maximum System Voltage	V_{sys}	[V]	1000 (UL)	PV Module Classification	Class II
Maximum Series Fuse Rating		[A DC]	20	Fire Rating Based on ANSI/UL 61730	C/TYP E 2
Max. Design Load, Push/Pull ³		[lbs/ft ²]	113 (5400 Pa)/75 (3600 Pa)	Permitted Module Temperature on Continuous Duty ²	-40°F up to +140°F (-40°C up to +60°C)
Max. Test Load, Push/Pull ³		[lbs/ft ²]	169 (8100 Pa)/113 (5400 Pa)	Storage Temperature Range ²	-4°F up to +113°F (-20°C up to +45°C)

² According to the Q.MI.349B-G1, the maximum temperature is stated as "+140°F (60°C)", but the maximum temperature of the connected DC module is up to "+185°F (+85°C)".

³ See Installation Manual

■ Qualifications and Certificates

Base DC module (Q.PEAK DUO BLK ML-G10.XY+ solar module series, where "X" can be any letter between A to W and "Y" can be any number between 1 to 9.)

UL 61730-1 & UL 61730-2, CE-compliant;

IEC 61215:2016;

IEC 61730:2016.

This data sheet complies with DIN EN 50380.

Qcells Microinverter (Q.MI.349B-G1)

This product is UL listed as PV Rapid Shut Down Equipment

UL1741, UL 1741SA, UL 1741SB, CSA C22.2 No 107.

AC Module (Q.PEAK DUO BLK ML-G10.XY+/AC solar module series, where "X" can be any letter between A to W and "Y" can be any number between 1 to 9.)

UL 1741, CSA C22.2 No. 107, IEEE E1547.



■ Accessories (Additional parts, not included in AC module package)

Model	Category	
 UL9703 E493181	Type 1: CAS-HQ-LO-1000 CAS-HQ-SH-650	Type 1: AC Cable Long (1000 mm) AC Cable Short (650 mm)
	Type2: CAS-HQ-LO-1300 CAS-HQ-SH-800	Type 2: AC Cable Long (1300 mm) AC Cable Short (800 mm)
 UL3003 E533140	CAB-HQ-KIT-200	AC Cable (Raw) : 200 m cable without AC connector for the free design of AC PV installation. - Detail components : 200 meter (656 ft)
 UL6703 E479328	CON-HQ-KIT-20	AC Connector : To assemble the AC cable (CAB-HQ-KIT-200) by installer themselves. - Detail components : 20pcs Female + 20pcs Male
 UL9703 E493181	ECAP-HQ-KIT-20	End Cap : To close the end of AC cable. - Detail components : 20pcs Female + 20pcs Male
 UL9703 E493181	UNT-HQ-TOOL-G1	AC cable and DC cable Unlocking Tool



Qcells pursues minimizing paper output in consideration of the global environment.

Note: Installation instructions must be followed. Contact our technical service for further information on approved installation of this product.

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